



State of Idaho

DEPARTMENT OF WATER RESOURCES

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RECEIVED

NOV 22 2004

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

November 16, 2004

Department of Water Resources
Eastern Region

Re: Order Requiring Measuring Devices and Headgates in Water District 34, Antelope Creek and Tributaries

Dear Water User,

The Idaho Department of Water Resources (IDWR) has issued the enclosed order requiring installation of measuring devices and headgates for all diversions of water from Antelope Creek and tributaries. Please note that headgates and measuring devices must be installed prior to June 1, 2005. A copy of the order and this letter is being sent to those users identified in the mailing list attached to the order.

This order is being sent to users on Antelope Creek as a result of numerous complaints to IDWR in the past several years from right holders on the creek describing a lack of administration by the watermaster. Adequate measuring and lockable control works are essential for proper administration by the watermaster.

Please note that the attached order requires users to submit plans for installation of measuring devices and headgates. Plans must be submitted to the Department on or before February 28, 2005. Plans should include descriptions of the general type or make of measuring devices and headgates, as well as a schematic showing the dimensions and locations of headgates and measuring devices. Please also describe the water source, legal description and name of the diversion for which any plan is submitted, and include your name, address and phone number with the plan.

Pursuant to Section 42-701, Idaho Code, users who neglect to comply with any provision of Department orders requiring installation of measuring devices and lockable controlling works may be subject to the administrative enforcement actions provided by Section 42-1701B, Idaho Code. Enforcement actions may include the issuance of Notices of Violation and Cease and Desist Orders, as well as possible civil penalties.

Attached also are IDWR Minimum Standards for Measuring Surface Water Diversions. Additional information regarding standard measuring devices and minimum standards can be obtained by referring to IDWR's web site at:

www.idwr.state.id.us/water/districts/water_measurement.htm. This web site has links to the following documents and publications.

1. IDWR Minimum Acceptable Standards for Open Channel and Closed Conduit Measuring Devices

2. Bureau of Reclamation Measurement Manual
3. University of Idaho Water Measurement Pamphlet

The Department asks for your full cooperation concerning this matter. If you have questions concerning this matter please contact me directly at the above location.

Respectfully,

A handwritten signature in cursive script, appearing to read "Steve Burrell".

Steve Burrell, PE
Water Distribution Section

c: IDWR Eastern Region
Bob Duke, Water District 34 Watermaster

Attachments: Order Requiring Measuring Devices and Controlling Works
Minimum Acceptable Standards for Open Channel and Closed Conduit
Measuring Devices

**BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO**

IN THE MATTER REQUIRING MEASURING DEVICES)	
AND CONTROLLING WORKS ON ANTELOPE CREEK)	
AND TRIBUTARIES, WATER DISTRICT 34)	ORDER REQUIRING INSTALLATION AND
_____)	MAINTENANCE OF CONTROLLING
)	WORKS AND MEASURING DEVICES
)	

This matter has come before the Idaho Department of Water Resources ("Department") as a result of ongoing inquiries and concerns by water users regarding regulation of water on Antelope Creek and tributaries located in Water District 34. Department staff recently inspected certain diversions on Antelope Creek and determined that adequate measuring devices and controlling works do not exist on many Antelope Creek and tributary diversions despite previous Water District 34 resolutions requiring headgates and measuring devices.

FINDINGS OF FACT

1. Water users at the 2002 Water District 34 annual meeting adopted a budget and resolution that provided for hiring a deputy watermaster to regulate water rights on Antelope Creek and tributaries. The users also adopted a resolution requiring installation of lockable headgates and measuring devices on each diversion. On April 18, 2002, the Department sent notice to Antelope Creek water right holders advising them that the Department expected compliance with the 2002 Water District 34 resolution requiring measuring devices and lockable headgates. The notice requested water users on Antelope Creek to install measuring devices by May 20, 2002, and install lockable headgates or controlling works by June 15, 2002. The notice further advised the users that that the watermaster could cease delivery of water to any diversion that was not in compliance with the Water District's resolution and the Department's notice.

2. In 2004, the Department received several phone calls and letters from different water users in Water District 34 regarding delivery and regulation of water rights on Antelope Creek, including two separate letters from an Antelope Creek water user dated October 5 and October 7, 2004. The letter of

October 5, 2004 specifically alleged certain water delivery problems and requested that the Department make a field inspection of diversions and conditions on the creek.

3. On October 6, 2004, Department staff made a field trip to Antelope Creek to inspect water diversions and creek conditions. Four irrigation diversions located along Antelope Creek and its tributaries were inspected. Of these four, only one had an acceptable locking headgate and measuring device.

CONCLUSIONS OF LAW

1. Idaho Code § 42-701 provides, in pertinent part, as follows:

42-701. INSTALLATION AND MAINTENANCE OF CONTROLLING WORKS AND MEASURING DEVICES BY WATER APPROPRIATORS -- PROCEDURE UPON FAILURE TO INSTALL AND MAINTAIN -- MEASURING AND REPORTING OF DIVERSIONS -- PENALTY FOR FAILURE TO COMPLY -- ENFORCEMENT PROCEDURE -- REPORT FILING FEE.

(1) The appropriators or users of any public waters of the state of Idaho shall maintain to the satisfaction of the director of the department of water resources suitable headgates and controlling works at the point where the water is diverted. Each device shall be of such construction that it can be locked and kept closed by the watermaster or other officer in charge, and shall also be of such construction as to regulate the flow of water at the diversion point. Each such appropriator shall construct and maintain, when required by the director of the department of water resources, a rating flume or other measuring device at such point as is most practical in such canal, ditch, wellhead or pipeline for the purpose of assisting the watermaster or department in determining the amount of water that may be diverted into said canal, ditch, wellhead or pipeline from the stream, well or other source of public water. Plans for such headgates, rating flumes or other measuring devices shall be approved by the department of water resources.

(3) Any appropriator or user of the public waters of the state of Idaho that neglects or refuses to construct or maintain such headgates, controlling works, or measuring devices, or has not executed an agreement in lieu of a measuring device as provided in subsection (2) of this section, upon receiving ten (10) days' notice from the director of the department of water resources within which to begin and diligently pursue to completion the construction or installation of the required device or devices or to begin and diligently pursue to completion a remedy to such defects as exist in accordance with said notice, then the director of the department of water resources may order the duly qualified and acting watermaster of the water district to shut off and refuse to deliver at the point of diversion, the water owned by such appropriator or user until the user does construct and maintain such headgates, controlling works or measuring devices or remedy the defects which exist or the director may take action pursuant to section 42-1701B, Idaho Code, to enforce the requirement to construct, install or maintain such devices.

(4) The appropriators or users of the public waters of the state of Idaho shall be given a reasonable time within which to complete construction of such headgates, controlling works or measuring

devices, depending upon the size and extent thereof, when due diligence has been used in the prosecution of such work.

2. In order for the watermaster to properly execute his duties, adequate measuring devices and controlling works must be installed at all points of diversion from Antelope Creek and tributaries.

ORDER

IT IS HEREBY ORDERED AS FOLLOWS:

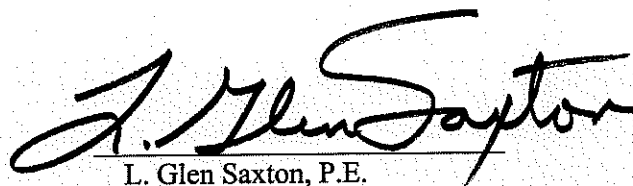
1. On or before February 28, 2005, all water right holders diverting water from Antelope Creek and tributaries shall submit plans for proposed, or existing measuring devices and lockable controlling works to the Department and to the watermaster of Water District No. 34 for review and approval.

2. Submitted plans shall be of a sufficient scale with an adequate number of views showing proper dimensions, so that the plans may be readily interpreted.

3. On or before June 1, 2005, all holders of water rights describing Antelope Creek and tributaries within Water District 34 as a source of water shall install and maintain measuring devices and lockable controlling works of a type acceptable to and approved by the Department.

4. After June 1, 2005, the watermaster shall shut off and refuse delivery of water to any diversion from Antelope Creek and its tributaries that does not have an adequate measuring device and/or lockable controlling works.

Dated this 16th day of November, 2004.



L. Glen Saxton, P.E.
Administrator
Water Management Division

CERTIFICATE OF SERVICE

I DO HEREBY CERTIFY that on this 17th day of November, 2004, the attached ORDER was served upon the following individual by placing a copy of the same in the United States Mail, postage prepaid, and properly addressed as follows:

MOUNTAIN SPRINGS RANCH
C/O SHANE ROSENKRANCE
5550 BARTON FLAT RD
MACKAY ID 83251

DALE & COLEEN HUFFAKER
ROUTE 1 BOX 56
MOORE ID 83255

ALVIN & SHERRIE CRAWFORD
3943 ANTELOPE RD
MOORE ID 83255

BOB CRUMP
3645 W ANTELOPE ROAD
MOORE ID 83255

MILTON & EVELYNN REESE
PO BOX W2
PAUL ID 83255

MARC KELLY
3668 W 3550 N
MOORE ID 83255

PRESTON BELL
ROUTE 1 BOX 56
MOORE ID 83255

DEE & SANDRA VAN ETEN
ROUTE 1 BOX 57
MOORE ID 83255

ROBERT & PEGGY SHAWVER
143 SOUTH 1200 WEST
BLACKFOOT ID 83221

JACK HORTON
1089 MORGAN AVE
ONTARIO OR 97914-8665

DAVID KEELE
HC 60 BOX 255
MOORE ID 83255

A LITTLE SOUTH OF HEAVEN LLC
DWALYNE & LE ANN MOOTES
3861 ANTELOPE ROAD
MOORE ID 83255

JACK & CORIENE HARROP
HC 60 BOX 240
MOORE ID 83255

RANDY & TRILBY MCAFFEE
3721 ANTELOPE ROAD
MOORE ID 83255

ANTELOPE VALLEY RANCH LLC
2411 WHALER COURT
VIRGINIA BEACH VA 23451

LEWENE CLARK & JENNIE MARIE
SMITH
3897 WEST 3700 NORTH
MOORE ID 83255

JOHN D KING
HC 60 BOX 280
MOORE ID 83255

MERLE M KING
HC 60 BOX 280
MOORE ID 83255

MAKIE DOTZENROD & MADHAVI
BRADFORD
3776 WEST 3700 NORTH
MOORE ID 83255

ROBERT & CHARMAINE
WADDOUPS
3747 WEST 2850 NORTH
MOORE ID 83255

JIMMIE WADDOUPS
PO BOX 542
MOORE ID 83255

ELSIE WADDOUPS
PO BOX 452
MOORE ID 83255

EMMA KELLER
C/O PHILIP KELLER
PO BOX 448
MOORE ID 83255

LOUIS HUBSMITH
647 EAST 130 SOUTH
DIETRICH ID 83324-5000

ALLEN ARTHUR & CAROL
EMERSON
2182 GROUSE DRIVE
VALLEY SPRINGS CA 95252

DONALD & SANDRA BARNUM
3646 W ANTELOPE RD
MOORE ID 83255

MARY BELL
ROUTE 1
DARLINGTON ID 83231

MARCUS & PAMELA KELLEY
ROUTE 1 BOX 60
DARLINGTON ID 83231

EARL MARCROFT
PO BOX 1092
HAILEY ID 83333

ROBERT MARCROFT
PO BOX 1092
HAILEY ID 83333

LAVELL & SHIRLEY PURSER
ROUTE 1 BOX 121B
MOORE ID 83255

TIMOTHY & CONNIE SAYER
2122 RENDEVOUS ROAD
IDAHO FALLS ID 83402

SCOTT WHITWORTH
PO BOX 147
MOORE ID 83253

DIXIE WHITWORTH
PO BOX 134
MAY ID 83253

HILDA SMITH
PO BOX 106
DARLINGTON ID 83231


BRUCE SOELBERT
1482 THREE FOUNTAINS DR
IDAHO FALLS ID 83204

JOE LEAVITT
PO BOX 221
MACKAY ID 83251

USDA FOREST SERVICE
PO BOX 507
MACKAY ID 83251

IDWR EASTERN REGION
900 N SKYLINE DR
IDAHO FALLS ID 83402

BOB DUKE
WD 34 WATERMASTER
PO BOX 53
MACKAY ID 83251


Cindy Dalby
Technical Records Specialist 1
Water Distribution Section

**STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES (IDWR)**

**MINIMUM ACCEPTABLE STANDARDS FOR
OPEN CHANNEL AND CLOSED CONDUIT
MEASURING DEVICES**

The source and means of diversion of water, whether surface or ground water, generally determines the measurement and reporting process. Surface water sources such as streams, springs and waste channels are normally diverted into open channels (ditches or canals), but closed conduits (pipes or culverts) are also used. Ground water is usually diverted into pipes (which may also discharge into open channels).

Measuring devices are required at or near the point of diversion from the public water source.

Open Channel

SURFACE WATER DIVERSIONS

I. Flow Measurement

The following discussion is applicable only to diversions from surface water sources. Measurement of a ground water diversion with an open channel measuring device must be pre-approved by the Department.

A. Standard Open Channel Measuring Devices

All open channel flow diversions should be measured using one of the following standard open channel flow measuring devices commonly used in Idaho:

- contracted rectangular weir
- suppressed rectangular weir
- Cipolletti weir
- 90 degree V-notch weir
- ramped broad crested weir (or ramped flume)
- Parshall flume
- trapezoidal flume
- submerged rectangular orifice
- constant head orifice

Construction and installation of these devices should follow published guidelines. References are available upon request.

B. Non-standard open channel devices: Rated Structures or Rated Sections

IDWR may authorize the use of non-standard devices and rated sections provided the device or section is rated or calibrated against a set of flow measurements using an acceptable open channel current meter or a standard portable measuring device. Further restrictions and requirements are available from the Department upon request.

CLOSED CONDUIT MEASURING DEVICES

Closed conduit or pipe line diversions require installation of a flowmeter.

I. Flow Measurement

There are many flowmeters on the market, with costs ranging from several hundred dollars to several thousand dollars. In general, the higher priced meters are more accurate and require less maintenance. Most meters on the market have an acceptable accuracy rating for IDWR's guidelines. However, some types and designs are much more prone to maintenance problems. Moving parts tend to wear when sand or silt is present, and moss often plugs small orifices and slows moving parts. No single flowmeter is best for every situation. We recommend that you visit with qualified dealers and discuss your needs with them.

A. Minimum Standards

The following are minimum standards for closed conduit flowmeters:

- Minimum manufacturers' design accuracy of +/- 2 percent of reading
- Installed accuracy of at least +/- 10 percent of reading
- Meter must be calibrated with an independent, secondary measuring device when installed, and at least once every four years thereafter
- Must read instantaneous flow or be capable of flow rate calculation
- Must record total volume
- Non-volatile memory (power outage does not zero volume reading)
- Sufficient digits to assure "roll-over" to zero does not occur within 2 years
- Volume reading cannot be "reset" to zero
- Installed to manufacturers' specifications

Meter manufacturers typically specify that a meter must be located in a section of straight pipe at least 10 pipe diameters downstream and 5 pipe diameters upstream of any valves, bends, contractions, or other interferences which will distort the flow pattern. However, some types of meters will produce acceptable results when installed in shorter sections of straight pipe. For example, at least one electro-magnetic flowmeter provides excellent measurement accuracy with only 5 lengths of straight pipe upstream from the meter.

Each manufacturer should provide the installation specifications for its meters. These **specifications must be adhered to** in order to achieve the accuracy required for the water measurement program. Again, we stress the importance of visiting with a qualified dealer and discussing your specific needs with them.

B. Types of Measuring Devices for Closed Conduits

Types	Pipe Sizes	Maintenance Required	Relative Purchase Price
Differential Head <ul style="list-style-type: none"> • Orifice • Venturi • Annubar 	small to large	Low to high. Sand wears on sharp edges, and particles can plug small orifices and tubes.	low to medium
Force Velocity <ul style="list-style-type: none"> • Turbine • Propeller • Impeller 	small to large	Typically moderate to high. Often problematic when exposed to sand or moss. Some cannot measure low velocities	low to medium
Ultrasonic	small to large	Low. Typically non-invasive with no moving parts to wear	high
Vortex	small to medium (about 12 to 14 inch maximum pipe diameter)	Low. Few or no moving parts to wear.	high
Electro-Magnetic	small to medium (about 12 to 14 inch maximum pipe diameter)	Low. No moving parts. Can provide good results with shorter lengths of straight pipe.	high

**EXPLANATORY INFORMATION
TO ACCOMPANY A
PRELIMINARY ORDER**

(To be used in connection with actions when a hearing was not held)

(Required by Rule of Procedure 730.02)

The accompanying order or approved document is a "**Preliminary Order**" issued by the department pursuant to section 67-5243, Idaho Code. It can and will become a final order without further action of the Department of Water Resources ("department") unless a party petitions for reconsideration, files an exception and brief, or requests a hearing as further described below:

PETITION FOR RECONSIDERATION

Any party may file a petition for reconsideration of a preliminary order with the department within fourteen (14) days of the service date of this order. The department will act on a petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law. See Section 67-5243(3) Idaho Code.

EXCEPTIONS AND BRIEFS

Within fourteen (14) days after (a) the service date of a preliminary order, (b) the service date of a denial of a petition for reconsideration from this preliminary order, or (c) the failure within twenty-one (21) days to grant or deny a petition for reconsideration from this preliminary order, any party may in writing support or take exceptions to any part of a preliminary order and may file briefs in support of the party's position on any issue in the proceeding with the Director. Otherwise, this preliminary order will become a final order of the agency.

REQUEST FOR HEARING

Unless a right to a hearing before the Department or the Water Resource Board is otherwise provided by statute, any person aggrieved by any final decision, determination, order or action of the Director of the Department and who has not previously been afforded an opportunity for a hearing on the matter may request a hearing pursuant to section 42-1701A(3), Idaho Code. A written petition contesting the action of the Director and requesting a hearing shall be filed within fifteen (15) days after receipt of the denial or conditional approval.

ORAL ARGUMENT

If the Director grants a petition to review the preliminary order, the Director shall allow all parties an opportunity to file briefs in support of or taking exceptions to the preliminary order and may schedule oral argument in the matter before issuing a final order. If oral arguments are to be heard, the Director will within a reasonable time period notify each party of the place, date and hour for the argument of the case. Unless the Director orders otherwise, all oral arguments will be heard in Boise, Idaho.

CERTIFICATE OF SERVICE

All exceptions, briefs, requests for oral argument and any other matters filed with the Director in connection with the preliminary order shall be served on all other parties to the proceedings in accordance with IDAPA Rules 37.01.01302 and 37.01.01303 (Rules of Procedure 302 and 303).

FINAL ORDER

The Director will issue a final order within fifty-six (56) days of receipt of the written briefs, oral argument or response to briefs, whichever is later, unless waived by the parties or for good cause shown. The Director may remand the matter for further evidentiary hearings if further factual development of the record is necessary before issuing a final order. The department will serve a copy of the final order on all parties of record.

Section 67-5246(5), Idaho Code, provides as follows:

Unless a different date is stated in a final order, the order is effective fourteen (14) days after its issuance if a party has not filed a petition for reconsideration. If a party has filed a petition for reconsideration with the agency head, the final order becomes effective when:

- (a) the petition for reconsideration is disposed of; or
- (b) the petition is deemed denied because the agency head did not dispose of the petition within twenty-one (21) days.

APPEAL OF FINAL ORDER TO DISTRICT COURT

Pursuant to sections 67-5270 and 67-5272, Idaho Code, if this preliminary order becomes final, any party aggrieved by the final order or orders previously issued in this case may appeal the final order and all previously issued orders in this case to district court by filing a petition in the district court of the county in which:

- i. A hearing was held,
- ii. The final agency action was taken,
- iii. The party seeking review of the order resides, or
- iv. The real property or personal property that was the subject of the agency action is located.

The appeal must be filed within twenty-eight (28) days of this preliminary order becoming final. See section 67-5273, Idaho Code. The filing of an appeal to district court does not itself stay the effectiveness or enforcement of the order under appeal.